

# Hitchcock's Machine Tool Blue Book

MARCH, 1933

TWENTY-EIGHTH YEAR

## New Uses for the Hand-ee Grinder

● All types of ordinary machine and hand taps, button dies, acorn dies, gun taps, and thread chasers are easily and quickly sharpened **on the job** with Hand-ee Grinder.



● As handy as a file and many times faster. Touches off parts and speeds up adjustments during assembly work. Operates on 110 volt A. C. or D. C. 10,000 R. P. M. Fits the hand. Just plug in and grind.

● \$10.00 with 3 wheel shapes free. Order direct or from your suppliers.

● Ask for Catalog just issued showing many industrial uses.

M. C. Tool Div.

**Chicago Wheel & Mfg. Co.**  
114 S. Aberdeen St., Chicago, Ill., U. S. A.



**PUBLISHED AT 508 So. DEARBORN ST CHICAGO**

# KRW Hydraulic and Sensitive ARBOR PRESSES

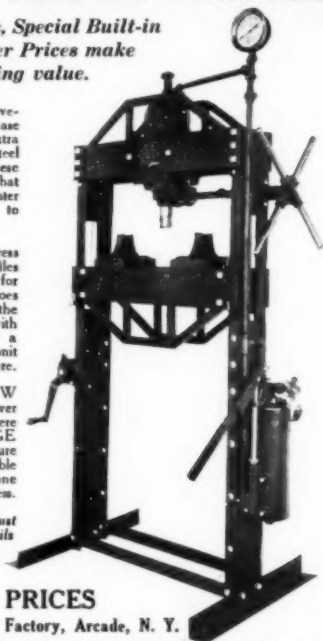
*New Improvements, Special Built-in Features and Lower Prices make them an outstanding value.*

THE last word in convenience, efficiency and ease of operation. Built extra strong and well braced with steel trusses electrically welded, these presses will withstand strains that would cause presses of lighter and inferior construction to buckle or collapse.

Hand wheel for sensitive press operations has sliding handles which pull out to the ends for increased leverage. Work does not have to be changed from the work table as is the case with other make presses having a separate sensitive press unit mounted on the side or elsewhere.

The importance of this KRW feature as a time and labor saver can be appreciated. Also there is **NO EXTRA CHARGE** for this important built-in feature on a KRW Press. Work table can be raised easily with one hand. A strictly one-man Press.

*Write for special circular, just off the press, giving full details and specifications of all KRW Arbor Presses.*



## PRICES

F. O. B. Factory, Arcade, N. Y.

- |   |          |
|---|----------|
| No. 37—35 ton Hydraulic and Sensitive Arbor Press (hand operated)     | \$128.00 |
| No. 37B—35 ton Hydraulic and Sensitive Arbor Press (air-oil operated) | 128.00   |
| No. 37E—50 ton Hydraulic and Sensitive Arbor Press (hand operated)    | 150.00   |
| (Can also be furnished in air-oil operated at same price)             |          |
| No. 37F—70 ton Hydraulic and Sensitive Arbor Press (hand oper. only)  | 275.00   |
- Gauge and fittings, \$15.00 extra on all presses.

## K. R. WILSON

10-16 Lock Street, Buffalo, N. Y., U. S. A.

EXPORT DEPARTMENT  
126 Liberty St., New York

WEST COAST BRANCH  
722 Mateo St., Los Angeles

PUBLISHED AT 508 S. DEARBORN ST. CHICAGO

# Hitchcock's Machine Tool Blue Book

Selected  
Circulation

Over  
25,000

MARCH, 1933

TWENTY-EIGHTH YEAR

## Don't Take Less; Don't Pay More

A manufacturer of metal-working equipment cannot call on all of his possible customers.

Hence the need of advertising.

But why stop short of a complete job?

The BLUE BOOK, with its controlled circulation, covers more responsible buying units than is possible by any other method.

And if you don't believe they make good use of it, go into the shops and inquire. We doubt if there is another medium that is quite so popular.

It has the circulation, it has the liking of users and buyers, and its simple and handy form make possible a most reasonable cost to the advertiser.

What more can you get anywhere?

*Let's get together and see if we  
cannot work out an advertising plan  
that is both effective and economical*

---

*Published By*

**Hitchcock Publishing Co.**

**508 S. Dearborn St.,**

**Chicago, Ill.**

*Consult the Classified Finding Index for your requirements*



Specify  
**ELCO SCREWS**  
FOR  
Accurate Fit, Uniform High Quality,  
Prompt Service



Standard  
Sizes  
Shipped from  
Stock in any  
desired  
quantity

*Send for Samples and Prices*

MACHINE SCREWS  
MACHINE SCREW NUTS  
CAP SCREWS    WOOD SCREWS  
PIPE PLUGS    LAG SCREWS

*Drop us a card to-day.*

**ELCO TOOL & SCREW  
CORPORATION**

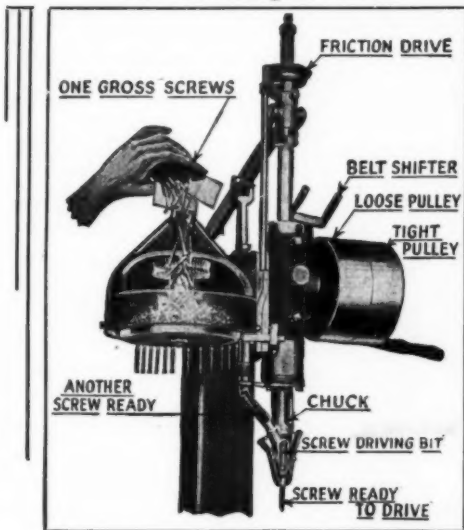
1808 Broadway,    Rockford, Ill.

*"It Pays to Use Good Screws"*



# Down Go Screw Driving Costs

65 to 85 per cent



## Ask Us To Prove It

**H**UNDREDS of Plants, the country over, are using the REYNOLDS as a means to reduce their costs of production. The automatic magazine feed aids in shaving off 65 to 85% in time and labor costs as compared with obsolete hand methods of driving screws. It also increases the value of the product because of the uniformity and quality which it guarantees. If you are not using this money saving machine it will pay you well to investigate.

*Drop us a card today giving length and gauge of screws you use, and dimensions over all of your work, and we'll gladly send facts and figures.*

**The Reynolds Machine Company**  
 Dept. H. H. Massillon, Ohio

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**"THE MODERN WAY TO DRIVE SCREWS"**

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# Illinois Plain and Surface Grinder



No. 10

This machine has been designed to meet the popular demand for those wanting a general purpose grinder. One end is arranged for surface grinding and the other end for tool or plain grinding.

## Special Features

**Base:** Box type construction, with liberal bearing space for knee, insuring accuracy.

**Knee:** Supported by elevating screw having ball thrust bearing. Hand wheel graduated in thousandths, long bearing on column.

**Spindle:** Made of High Carbon Steel, heat treated, runs in 4 Timken tapered roller bearings, adjustment collars to each bearing. Bronze bearings furnished, if desired.

**Countershaft:** Ball bearing with tight and loose pulley and belt shifting device.

**Lubrication:** Alemite system for spindle and countershaft.

*Write for Complete Specifications and Prices*

**Illinois Machine & Mfg. Co.**  
**LaSalle, Illinois**

**FOOTBURT**



## **A Single Spindle Footburt Sipp Sensitive Drill**

**Made in three  
sizes of single  
and multiple  
spindle models**

### **More holes with this machine**

**Why? Because you can change speeds in two seconds or belts in ten seconds—because the automatic idlers keep the belt pulling to capacity at all times—because the full ball bearing equipment and accurate machining gives a smooth, fast cut.**

*Write for No. 650 Folders*

**The Foote-Burt Company, Cleveland, O.**

**FOOTBURT**

## Gratitude

Small Boy: Mister, will you lend me two dimes?

Mr. Bridsell: With pleasure.

Small Boy: Then make it four, and thoroughly enjoy yourself.

## Underpaid

Young man, said the employer, do you save ten per cent of what you earn?

No sir, said the bright young man, my whole salary is not that much.

## In This Motoring Age

The little city girl stood and watched the farmer milk the only cow he had.

The next morning the farmer was much excited, as the cow had been stolen during the night.

Farmer: Drat the thief that stole that cow. He's miles away from here by now.

Little Girl: I wouldn't worry bout it, Mister, they can't get so far away with it, 'cause you drained her crank-case last night.

## Help! Help!

Diner: This steak is so tough my knife won't cut it. What are you going to do about it?

Head Waiter: Boy bring a sharper knife for the gentleman.

## They Don't Answer

He had purchased a parrot which was rather a young bird and was trying to teach it to talk. He walked close to the cage and said in a loud, clear voice:

Hello! Hello! Hello there! Hello Poll!

He yelled until tired, the parrot paying no attention to him. But when the man stopped for breath, the parrot opened one eye and said, Line's busy.

## Cicero the Cynic Says:

Women can keep a secret just as well as men, but generally it takes more of them to do it.





# CHAMPION Tool Holders

**Save Expensive Tool Steel**

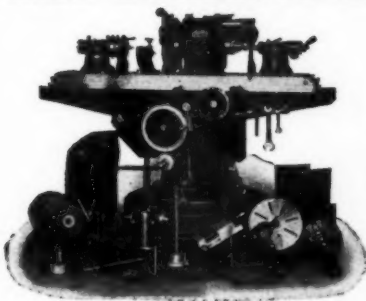
Made of drop-forged steel, thoroughly case-hardened. Absorbs heat from cutter, permits heavier cuts, lessens breakage.

The patented, protruding under-support, equipped with unbreakable "Mac-it" set-screw, increases the bearing for the cutter 40 to 70%, with a corresponding increase in cutter economy. Write for details.

*Our Catalog also describes Champion Expanding Mandrels, Vises, Clamps, Emery Wheel Dressers, Shop Furniture, Etc.—Send for it.*

**The Western Tool & Mfg. Co.**  
SPRINGFIELD, OHIO

## SIX Grinders In ONE



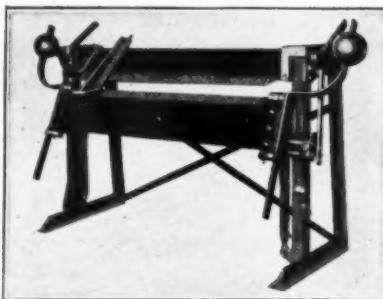
**12"x36"  
Thompson  
Universal  
Grinder**

Does every grinding operation required in the machine shop. Lowest cost work for plain, surface, die, cutter, edge and internal grinding. All standard machines equipped with auxiliary independent coarse cross feed for surface grinding.

*Let us send you the Illustrated Booklet today!*

**The Thompson Grinder Company**  
1534 West Main St.,      1-1      Springfield, Ohio

# Whitney - Jensen BRAKE



Capacity 16 gauge  
or lighter.

Can be changed  
into box or pan  
brake in 10 or 15  
minutes, making  
it a dual machine.

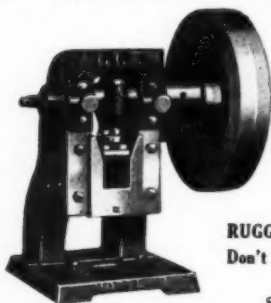
Bends opposite  
from any other  
machine.

Stationary platen  
makes very square  
corners possible.

*Send for Our Catalog and Complete Information*

**WHITNEY METAL TOOL COMPANY**  
95 FORBES ST., ROCKFORD, ILL.

## ALLEN POWER BENCH TYPE PUNCH PRESS A HIGH GRADE PRESS AT LOW COST



A small punch press with the  
features of a heavy machine.

Height  $15\frac{1}{2}$ " . Base size  $8\frac{1}{2} \times 8\frac{1}{2}$ " .  
Flywheel 10" dia. Weight 28 lbs.  
Stroke, standard  $\frac{3}{4}$ " .  
Positive Single Pin Clutch.  
Capacity, soft steel disc  $\frac{3}{4}$ "  $\times$   $\frac{1}{16}$ " .  
Weight 100 lbs.  
Power required  $\frac{1}{4}$  to  $\frac{1}{2}$  H. P.

*Press Fully Guaranteed*

**Price \$75.00**

**RUGGED—POWERFUL—RELIABLE**

Don't use big presses for small work.  
Get an "ALLEN."

*Send for complete details*

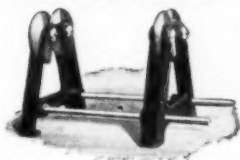
**Allen-Morris Machine Tool Co.**  
Fairmount Station, Kansas City, Mo.

# Anderson Ever Ready

# Balancing Ways

## Exceedingly Sensitive

## Easy to Manipulate



Made in six sizes to balance anything that revolves from a crank shaft to a 24,000 lb. turbine rotor. They require no special leveling, no adjustment, and no centers.

Equipped with glass-hard spindles, chilled steel discs, and especially sensitive ball bearings, to give accurate, long time service.

"Swing"	20"	40"	60"	72"	96"	72"
Greatest distance bet. standards..	20"	30"	30"	66"	88"	20'
Capacity in lbs.	1000	2000	2000	5000	10000	24000
Approx. shipping weight.....	45	90	150	350	650	
Code	Bend	Bid	Bis	Bib	Ben	

**Anderson Bros. Mfg. Co.**  
1915 Kishwaukee St., Rockford, Ill.

STANDARDIZATION PAYS

## Universal Joints

### Steel and Bronze



*Send for Circular giving specifications  
and prices on complete line*

BOSTON GEAR WORKS, INC.

DEPT. HMT,

NORTH QUINCY, MASS.

BOSTON NEW YORK PHILADELPHIA CLEVELAND CHICAGO

# BOSTON GEARS

# MORE PRODUCTION

With Higher Speed, Less Spoiled Work, Fatigue or Broken Taps



## ETTCO High Speed-Sensitive TAPPING ATTACHMENT

MULTIPLE SPINDLE TAPPING HEADS  
With complete engineering service.

FIVE SIZES—UP TO ONE INCH TAPS

*Try Ettcos at Our Expense. We have a nice New Circular ? ?*

**ETTCO TOOL CO., Inc.,** 594 Johnson Ave.,  
BROOKLYN, N. Y.

# VANDERBEEK UNIVERSAL JOINTS



Are used in all kinds of machines where high grade Joints are needed. The very highest grade of workmanship goes into our Joints.



## We specialize on Joints

for instrument work and light drive as well as airplane use. Hundreds of thousands of Vanderbeek Universal Joints are in daily use.

*Write for Prices and State Your Quantities*

**American Tool Works, Inc.**  
25 High St., Hartford, Conn., U. S. A.

## Send Us Your Inquiries

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We are always glad to forward a memo of any machinery or equipment for which you are in the market to all of our advertisers without charge.

### The Blank Form

printed on the other side of this page is for this purpose, and you are free to make use of it without obligation.

It has been the means of bringing many buyers and sellers together, to their mutual profit and satisfaction.

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*Mail your needs to*

**HITCHCOCK PUBLISHING CO.**

508 S. Dearborn St., Chicago





## “Utility Tools”

### Cut Replacement Costs

*This Interchangeable Counterbore and Spot Facer is equipped to serve you better, longer and with greater economy—because of*

#### *Four Points of Superiority*

- (1) Pilots cannot break or twist off.
- (2) Cutters cannot break and are easily removed.
- (3) Set screws cannot loosen.
- (4) The drive is the utmost in simplicity and power.

*If you are interested in tool economy, send for catalog; it will pay you*

**The J. C. Glenzer Company**

6469 Epworth Blvd., Detroit, Mich.

## **SPEED**

### **SPOT WELDERS**

$\frac{1}{2}$  to 50 K. V. A.

Made foot-operated and variable speed  
**AUTOMATIC MOTOR DRIVE**, no change gears, for welding from .0005 to  $\frac{5}{8}$ " combined thickness.

Welders for Fine Work Priced As Low As

**\$55.00**

*Submit Your Problems*



**MANUAL**



**AUTOMATIC**

**EISLER ELECTRIC**

763 So. 13th Street,

NEWARK, N. J.

*Distributor and Dealer Connections Desired*

BETTER-MADE  
DIE SETS

**BAUMBACH**

AT LOWER  
COST

24  
DIFFERENT  
STYLES



OVER  
95,000  
SIZES

**STANDARDIZED**

Semi-Steel

**DIE SETS**

Drop Forged Steel

*Send For Our New 208 Page Catalog*

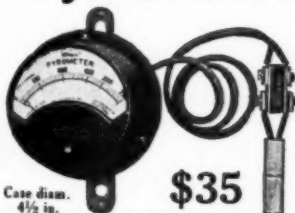
**E. A. BAUMBACH MFG. CO.**  
1810 South Kilbourn Ave., CHICAGO, ILLINOIS

## **“ALNOR” Pyrometers**

**for the  
Hardening  
Furnace**

### **MODEL 223**

Inexpensive, yet accurate and durable, the ALNOR Pyrometer is used by large and small shops everywhere for heat-treating work. Because of its low first cost and compact size it is also very popular for soft metal melting, galvanizing, die casting, japanning, enameling, measuring flue gas temperatures and many other purposes.



Case diam.  
4½ in.

Scale length  
3½ in.

**\$35**

With 10 ft. Alloy Wire,  
connector block and a  
No. 8 gauge insulated  
thermo couple 24" long  
without protection tube

*Write for descriptive folder*

**Illinois Testing Laboratories, Inc.**  
150 W. Austin Ave., Chicago, Ill.





**Buy this 9" ATLAS LATHE**  
with what it **SAVES** on power

**\$79<sup>00</sup>**

**Complete  
as Shown  
less motor.**

Transfer your small lathe work from large, power consuming lathes to an ATLAS. Use only  $\frac{1}{4}$  H. P. motor. Can easily pay for itself in 6 to 8 months. A fine, accurate machine, strongly built of best materials. Self contained. 18" between centers, also larger sizes. Cuts all standard screws from 4 to 72 per inch. Two weeks trial. Satisfaction or money back guaranteed. Easy terms. *Write for all details.*

**ATLAS PRESS CO.,** 1850 N. Pitcher St.,  
Kalamazoo, Mich.

## **WANTED**

### **SALES PROMOTION AND ADVERTISING POSITION**

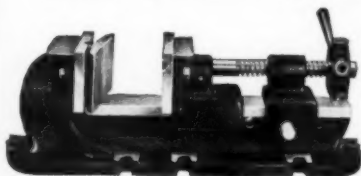
More sales inquiries and larger sales volume, domestic and foreign, can actually be produced by well known Sales Promotion and Advertising Manager, with unusual training and experience, now seeking new connection.

*Ask to see credentials.*

**Address: Box 112, c/o Hitchcock Publishing Co.**  
508 S. Dearborn St., Chicago, Ill.

# Gem Drill Press Vise

**Discard Obsolete Equipment!**



Made  
In  
3-sizes  
Up To  
10½"

*Equip Your Plant with GEM VISES*

**J. E. Martin Tool & Die Works**

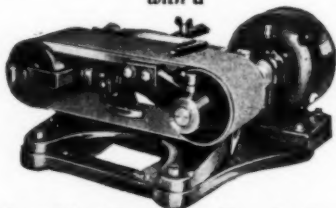
528 W. State St.,

SPRINGFIELD, OHIO

*WRITE FOR NEW PRICES*

## Abolish Expensive Hand Finishing

*with a*



## Simplex-M Abrasive Band Grinder

This Grinder accelerates production and cuts costs. Hand emerying or filing operations are antiquated in comparison. The use of this new modern machine assures straight grain finishes with sharp edges. Details of this and other styles and sizes on request.

**WALLS SALES CORP.,** 96 Warren Street  
NEW YORK

## ***To Industrial Plants***

For the mutual benefit of yourselves and our advertisers, we want to be sure that the Blue Book goes, without cost, to those in your plant who can use it to good advantage.

***Quite a number of you***, particularly among automobile manufacturers, have sent us lists of the prominent men in your organizations who are most closely identified with the planning of your improvements and the selection or purchase of your machinery.

***If you have not done this***, you are earnestly requested to send us such a list of names, so that we may mail the Blue Book regularly every month to those of your own selection, without cost or obligation of any kind whatsoever. Simply tear out this page, write the names on the reverse side, and mail it to the publisher.

***Our only object*** is to make the Blue Book the best buying and selling medium on earth between manufacturers of machine tools and shop equipment and plants such as yours.

*(See next page)*

**HITCHCOCK PUBLISHING CO.**  
**508 S. Dearborn St., Chicago, Ill.**

Please send your Machine Tool Blue Book, without cost, to the following members of our organization, who have to do with planning the equipment of our machine shops and the selection or purchase of our machine tools and other shop requirements:

*(Give both names and titles)*

It is understood that you are to use the above names as a mailing list for your Machine Tool Blue Book only, and that they will not be used for any other purpose.

Name.....

Street No.....

City..... State.....

## ARMSTRONG *Armide* TOOL SETS

bring the advantages of Carbide Cutting Tools within range of every machine shop, tool room and maintenance department. Will do all ordinary turning operations on the hardest steels and toughest alloys —on metals not ordinarily machinable. Sets of 4 or 5 Armide (Carbide Tipped) Cutters (standard forms, ready ground) with ARMSTRONG Carbide Tool Holder, in steel case.



Write for  
Circular

**ARMSTRONG BROS. TOOL CO.**

*"The Tool Holder People"*

319 N. Francisco Ave., CHICAGO, U. S. A.



# 1905 *Strand* 1933

NO LET UP ON QUALITY  
TO MEET CHEAPER MARKETS  
IT DOES NOT PAY

**Always Cheaper To Buy The Best**

Type M7A—1½ H. P.



## STRAND FLEXIBLE SHAFT MACHINES

Represent The Highest Class  
Workmanship And Materials.

**ALL AMERICAN MADE**

Manufactured By

**N. A. STRAND & CO.**

5001-5009 N. Lincoln St.,

Chicago, Ill.



## Let the **BLUE BOOK** be Your Messenger

*There are four cardinal points  
to profitable advertising:*

1. The article advertised must have real merit.
2. The copy describing it should be clear and concise.
3. The advertising message should be delivered to the maximum number of responsible buyers.
4. The cost should be in fair proportion to the distribution of the medium used, quality of circulation considered.

The controlled circulation of *Hitchcock's Machine Tool Blue Book* will deliver your message to more responsible users and buyers of machine tools and allied equipment, including aircraft, automotive and other large manufacturing plants, railway mechanical officials, etc., in the United States, than any other publication on earth. It is also sent to the more important importers in all parts of the world.

If your product is right and your copy is right, then the use of the *Blue Book* as your advertising medium completes a combination that is unbeatable.

*The rates are most reasonable—write for them*

**HITCHCOCK PUBLISHING CO.**  
508 South Dearborn St., Chicago, Ill.

# No. 27 Polishing Machine

**for** Auto Bumpers, Stove Tops,  
Stainless Steel,  
Electric Irons and  
Other Specialties.



*"35 Years of  
Polishing Machine  
Experience"*

Manufacturers of Grinding and Polishing Machines,  
Punch Presses, Shearing and Bending Machines.

*Descriptive Illustrated Circulars and Prices on Request*

**Excelsior Tool & Machine Co.,** East St. Louis,  
ILLINOIS.



## Punch MORE Holes with T. H. L. PUNCHES

T. H. L. Punches will produce more than the average number of holes, for they are made of the highest grade, dependable tool steel and are hardened and tempered—*right*. Our experience of nearly 40 years in making of punches assures you satisfactory, continuous and profitable production.

### *A Trial Order*

will convince you. We carry large stocks of regular sizes for immediate delivery—special sizes quickly made.

*Write for a copy of our Catalog*

**T. H. Lewthwaite Machine Co.**  
311 East 47th St., (Est. 1890) New York City

# Distribution of Hitchcock's Machine Tool Blue Book (Selected Circulation)

The table below shows the circulation of Hitchcock's Machine Tool Blue Book by States, and incidentally how the users of iron working machinery are distributed.

The figures given stand for the number of plants to which the Blue Book is sent, except for some hundreds of the larger manufacturers of metal products, where copies are addressed to the important mechanical officials by name.

The main reason why the Blue Book has thrived is its ability to put advertising messages across to the whole body of possible buyers everywhere in the country. Its value for that purpose hardly can be overestimated.

Revised to January 1, 1933

Alabama .....	149	Nevada .....	14
Arizona .....	34	New Hampshire .....	114
Arkansas .....	84	New Jersey .....	742
California .....	905	New Mexico .....	24
Colorado .....	189	New York .....	2,834
Connecticut .....	879	North Carolina .....	277
Delaware .....	52	North Dakota .....	32
District of Columbia .....	63	Ohio .....	2,874
Florida .....	115	Oklahoma .....	108
Georgia .....	246	Oregon .....	142
Idaho .....	25	Pennsylvania .....	2,605
Illinois .....	2,502	Rhode Island .....	189
Indiana .....	922	South Carolina .....	144
Iowa .....	468	South Dakota .....	32
Kansas .....	249	Tennessee .....	212
Kentucky .....	164	Texas .....	322
Louisiana .....	148	Utah .....	39
Maine .....	136	Vermont .....	82
Maryland .....	281	Virginia .....	194
Massachusetts .....	1,668	Washington .....	285
Michigan .....	1,673	West Virginia .....	147
Minnesota .....	376	Wisconsin .....	1,018
Mississippi .....	72	Wyoming .....	14
Missouri .....	668	American Possessions ..	77
Montana .....	40	Foreign (Canada, Europe,	
Nebraska .....	124	Australia, etc.) .....	659

Total..... 25,412

Of the above, 20,803 go to private concerns, 1,688 to railway mechanical and purchasing officials, 433 to technical schools, etc.



# STOP Your Losses

with a Walton Tap Extractor



Remove that broken tap quickly — *without* injury to the threads.

About 90% of all taps break before they wear out. Each broken tap means stopped production, and the loss of a mechanic's valuable time. Decrease time spent on extracting broken taps and increase production. You can do it with a Walton Tap Extractor.

Made in three and four-flute styles.

*A 60 day free trial will convince you*

**The Walton Company**

302 Pearl St.,

Hartford, Conn.

## MARKING DEVICES

RUBBER STAMPS



STEEL STAMPS



BURNING BRANDS



ETCHED METAL  
NAME PLATES



BRASS  
LABELS



**THE SCHWERTLE STAMP CO.**  
BRIDGEPORT, CONN.

# VICE

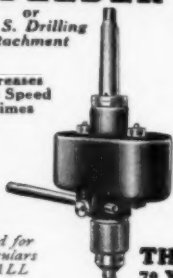
A good one for Driller,  
Miller, Shaper, or Planer.

6", 9" and 12" Jaws

## — DRILL — SPEEDER

or  
H. S. Drilling  
Attachment

Increases  
the Speed  
3 Times



Send for  
Circulars  
of ALL



Fig. 2

Without Jig  
Attachments

## KNURL HOLDER

for Turret Lathe

Adjustable to any size within capacity.



Swivel  
Lugs

Shank  
to suit Turret

**THE GRAHAM MFG. CO.**  
70 Willard Ave., PROVIDENCE, R. I.



## The Blue Book

Goes straight to the Heart of 96% of the  
Best Plants in every State of the U. S. A.

The above statement is the result of careful mail inquiries  
directed to thousands of the larger tool-using concerns.

It is also mailed every month to the leading importers of  
American machinery and equipment in foreign countries.

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# Grant NOISELESS SPINNING Riveter



*Highest Speed*  
*Perfect Uniformity*  
*Lowest Cost*

A Grant Riveter places and finishes one rivet every second it is in operation.

It will finish rivets to the exact degree of tightness or looseness that you desire, and the heads are perfectly formed and highly polished.

The Grant Riveter keeps operating costs at a minimum, and is so simple that unskilled labor can operate it as effectively as can skilled machinists.

*Send samples of your riveting work and ask for a catalog*

**The Grant Mfg. & Machine Co.**  
C. E. Station, Bridgeport, Conn.

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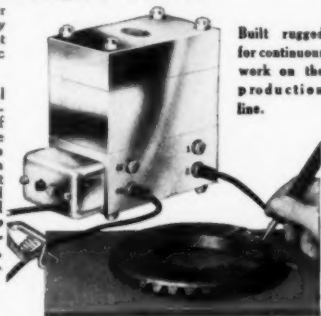
## For Light and Heavy Etching

**With 24 Stages of Control.**

The LUMA Master Etchtool fulfills every marking requirement that can be done by an electric Etching outfit.

A Production Tool with as many as 24 different stages or varieties of control for regulating the depth of marking, this tool can be used for extra light marking of machine cast scales, micrometers and fine tools or can be used for *extra heavy and deep* marking of rough and unfinished iron, cast iron, forgings, steel plates, etc.

*Send for circular giving complete data and details of this modern Instrument.*



Built rugged for continuous work on the production line.

**LUMA ELECTRIC EQUIPMENT CO.**  
DEPT. H.—Main P. O. Box No. 132—TOLEDO, OHIO

# MARVEL

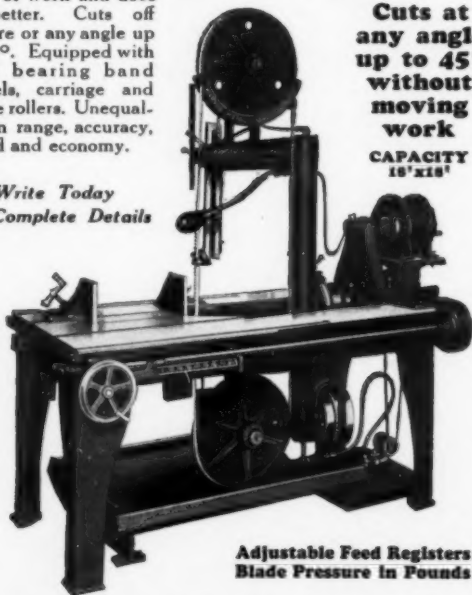
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FULLY UNIVERSAL, simple to operate, always ready for any job—from the largest to the smallest. Cuts off bar steel, pipe, tubing, mouldings, structural shapes, etc. Does a greater variety of work and does it better. Cuts off square or any angle up to 45°. Equipped with ball bearing band wheels, carriage and guide rollers. Unequalled in range, accuracy, speed and economy.

*Write Today  
for Complete Details*

**Cuts at  
any angle  
up to 45°  
without  
moving  
work**

**CAPACITY  
18"x18"**



**Adjustable Feed Registers  
Blade Pressure in Pounds**

**ARMSTRONG - BLUM "M"**

**341 N. Francisco Ave., CH**

# MARVEL



## MARVEL HOLE SAW

26 Sizes,  $\frac{3}{4}$ " to  $4\frac{1}{8}$ "

Cuts clean, round holes through steel, wood, cast iron, brass, copper, bakelite, slate, marble, etc., to a depth of  $1\frac{1}{2}$  in. The teeth are HIGH SPEED STEEL, welded to a tough, special alloy UNBREAKABLE BODY. They stand up in use in portable electric drills and drill presses. YOU WANT THE BEST. Write us for details, price, etc.



## MARVEL HACK SAW BLADES

MARVEL High Speed Edge Hack Saw Blades are guaranteed not to break in two in any machine—not even by accident. Marvel blades with the genuine high speed steel cutting edge electrically welded to a tough special alloy back outlast ordinary blades from six to ten times and with faster, cleaner cuts, and fewer blade changes.

*Send for Descriptive Circulars*

**MANUFACTURING CO.**  
**CHICAGO, ILLINOIS**

# Classified Finding Index

## Arbor Presses

Atlas Press Co., Kalamazoo, Mich.  
Wilson K. R., Buffalo, N. Y.

## Balancing Ways

Anderson Bros. Mfg. Co., Rockford, Ill.

## Ball Bearings

Boston Gear Works, Inc., North Quincy,  
Mass.

## Band Saw Machines, for Metal

Armstrong-Blum Mfg. Co., 941 N. Francisco  
Ave., Chicago

## Bending Machines, Hand and Power

Armstrong-Blum Mfg. Co., 941 N. Francisco  
Ave., Chicago  
Excelsior Tool & Mch. Co., E. St. Louis, Ill.  
Lewthwaite Mchs. Co., T.H. 311 E. 47th., N. Y.

## Blowers, Electric

Clements Mfg. Co., 6650 N. Hennepin Ave.,  
Chicago, Ill.

## Belt and Nut Machinery

Foots-Burt Co., Cleveland, O.

## Boring, Drilling & Milling Machines

Defiance Machine Co., Defiance, O.

## Brakes, Hand Truck

Fisher Equip., 1281 Caxton Bldg., Chicago

## Brands, Burning

Schwerdtle Stamp Co., Bridgeport, Conn.

## Cap Screws, Hexagon Head

Rico Tool & Screw Corp., Rockford, Ill.

## Centers, Frictionless Live

Precision Gauge & Tool Co., Detroit, Mich.

## Centers, Special

Precision Gauge & Tool Co., Detroit, Mich.

## Chain Drives

Boston Gear Works, Inc., North Quincy,  
Mass.  
Cullman Wheel Co., 1359 Altgeld St., Chgo.

## Chains, Silent and Roller

Cullman Wheel Co., 1359 Altgeld St., Chgo.

## Chamfering Machines, Automatic

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Chucks, Automatic

Proconier Safety Chuck Co., 14 S. Clinton  
St., Chicago

## Chucks, Collet

Proconier Safety Chuck Co., 14 S. Clinton  
St., Chicago

## Chucks, Drill

Estee Tool Co., Brooklyn, N. Y.

## Chucks, Drill and Tap

Proconier Safety Chuck Co., 14 S. Clinton  
St., Chicago

## Chucks, Quick Change

Glenzer Co., J. G., Detroit, Mich.  
Proconier Safety Chuck Co., 14 S. Clinton  
St., Chicago

## Chucks, Ring Wheel Grinder

Graham Manufacturing Co., Providence, R. I.

## Cold Saws

Burke Machine Tool Co., Connecticut, Ohio

## Contract Work Wanted

Burke Machine Tool Co., Connecticut, O.

## Counterbores and Spot Facers

Glenzer Co., J. G., Detroit, Mich.

## Demagnetizers

Luma Electric Equipment Co., Toledo, Ohio

## Die Casting Machines.

Madison-Kipp Corp., Madison, Wis.

## Dies, Blank and Forming

American Tool Works, Inc., Hartford, Conn.  
Rico Tool & Screw Corp., Rockford, Ill.

## Dies, Die Casting

Madison-Kipp Corp., Madison, Wis.

## Die Sets

Haubach Mfg. Co., E. A., 1812 So. Kil-  
bourne Ave., Chicago

## Drill Fixtures

Slawek Tool Co., Detroit, Mich.

## Drill Jigs

Slawek Tool Co., Detroit, Mich.

## Drill Heads, Multiple

Slawek Tool Co., Detroit, Mich.

## Drilling Attachments, High Speed

Graham Manufacturing Co., Providence, R. I.

## Drilling Machines, Multiple Spindle

Foots-Burt Co., Cleveland, O.

## Drilling Machines, Portable Electric

Strand Co., N. A., 6001 N. Lincoln St., Chgo

## Drilling Machines, Sensitive

Burke Machine Tool Co., Connecticut, Oh  
Foots-Burt Co., Cleveland, O.

## Drilling Machines, Vertical

Foots-Burt Co., Cleveland, O.

# Classified Finding Index

## Drills, Twist

Cleveland Twist Drill Co., Cleveland, Ohio.

## Drives, Lathe

Cullman Wheel Co., 1259 Altgeld St., Chgo.

## Drive Screws

Elco Tool & Screw Corp., Rockford, Ill.

## Electric Blowers

Clements Mfg. Co., 6650 Naragansett Ave.,  
Chicago, Ill.

## Electrical Instruments

Illinois Testing Laboratories, Inc., 150 W.  
Austin Ave., Chicago

## Emery Wheel Dressers and Cutters

Western Tool & Mfg. Co., Springfield, O.

## Engravers, Mechanical and Hand

Schwardtke Stamp Co., Bridgeport, Conn.

## Etching Machines, Electric

Luma Electric Equipment Co., Toledo, Ohio

## Experimental Work

American Tool Works, Inc., Hartford, Conn.

## Fixture Locks

Slewak Tool Co., Detroit, Mich.

## Furniture, Machine Shop

Western Tool & Mfg. Co., Springfield, O.

## Gages, Pin, Plug, Ring and Snap

American Tool Works, Inc., Hartford, Conn.

## Gears

Boston Gear Works Inc., North Quincy,  
Mass.

## Grinder, Electric

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Grinder, High Speed

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Grinder, Hand

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Grinding Machines, Belt

Wallis Sales Corp., 96 Warren St., New York

## Grinding Machines, Cutter, Reamer and Tool

Thompson Grinder Co., Springfield, Ohio

## Grinding Machines, Cylindrical

Thompson Grinder Co., Springfield, Ohio

## Grinding Machines, Die

Thompson Grinder Co., Springfield, Ohio

## Grinding Machines, Internal

Thompson Grinder Co., Springfield, Ohio

## Grinding Machines, Portable Electric

Strand Co., N. A., 6001 N. Lincoln St., Chgo

## Grinding Machines, Pulley Finishing

Graham Manufacturing Co., Providence, R. I.

## Grinding Machines, Ring Wheel

Graham Manufacturing Co., Providence, R. I.

## Grinding Machines, Surface

Thompson Grinder Co., Springfield, Ohio

## Grinding Machines, Universal

Thompson Grinder Co., Springfield, Ohio

## Grinding Wheels

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Grinding Wheels, Mounted

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Grinding Wheels On Shanks

M. C. Tool Co., 116 S. Aberdeen St., Chicago

## Hack Saw Blades

Armstrong-Blum Mfg. Co., 341 N. Francisco  
Ave., Chicago

## Hack Saw Machines

Armstrong-Blum Mfg. Co., 341 N. Francisco  
Ave., Chicago

## Jigs and Fixtures

American Tool Works, Inc., Hartford, Conn.  
Elco Tool & Screw Corp., Rockford, Ill.  
Slewak Tool Co., Detroit, Mich.

## Knurls and Holders, for Turrets

Graham Manufacturing Co., Providence, R. I.

## Lag Screws

Elco Tool & Screw Corp., Rockford,

## Lathe Drives

Cullman Wheel Co., 1259 Altgeld St., Chgo.

## Lubricators, Engine

Madison-Kipp Corp., Madison, Wis.

## Lubricators, Machine Tool

Madison-Kipp Corp., Madison, Wis.

## Mandrels, Expanding

Western Tool & Mfg. Co., Springfield, O.

## Machine Screws

Elco Tool & Screw Corp., Rockford, Ill.

## Milling Attachments

Burke Machine Tool Co., Connecticut, Ohio

# Classified Finding Index

## Milling Machines, Bench

Burke Machine Tool Co., Connecticut, Ohio

## Milling Machines, Hand

Burke Machine Tool Co., Connecticut, Ohio

## Milling Machines, Plain

Burke Machine Tool Co., Connecticut, Ohio

## Name Plates, Etched and Stamped

Schwerdtle Stamp Co., Bridgeport, Conn.

## Nuts, Machine Screw

Elco Tool & Screw Corp., Rockford, Ill.

## Oil, Cutting

Sun Oil Co., Philadelphia, Pa.

## Oil, Lubricating

Sun Oil Co., Philadelphia, Pa.

## Pins, Leader And Dowel

Baumbach Mfg. Co., E. A., 1812 So. Kilmourne Ave., Chicago

## Pipe Plugs, Square Head and Slotted

Elco Tool & Screw Corp., Rockford, Ill.

## Polishing and Buffing Machines

Excelsior Tool & Mch. Co., E. St. Louis, Ill.

## Presses, Arbor

Atlas Press Co., Kalamazoo, Mich.  
Wilson, R. K., Buffalo, N. Y.

## Presses, Punch

Lewthwaite Mch. Co., T. H., 811 E. 47th., N. Y.  
Allen-Morris Machine Tool Co., Kansas City, Mo.

## Punch Press Feeds

Wittke Mfg. Co., 4309 W. 24th Place, Chgo.

## Punch, Shear and Bender, Hand

Armstrong-Blum Mfg. Co., 841 N. Francisco Ave., Chicago

## Punches, Hand

Armstrong-Blum Mfg. Co., 841 N. Francisco Ave., Chicago  
Lewthwaite Mch. Co., T. H., 811 E. 47th., New York  
Whitney Metal Tool Co., Rockford, Ill.

## Punches and Dies

Lewthwaite Mch. Co., T. H., 811 E. 47th., N. Y.

## Punches and Shears

Excelsior Tool & Mch. Co., E. St. Louis, Ill.

## Pyrometers

Illinois Testing Laboratories, Inc., 150 W. Austin Ave., Chicago

## Pyrometers, Portable & Stationary

Illinois Testing Laboratories, Inc., 150 W. Austin Ave., Chicago, Ill.

## Reamers, Adjustable

Cleveland Twist Drill Co., Cleveland, Ohio.

## Riveters, Multiple Spindle

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Riveters, Pneumatic

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Riveting Machines

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Rod Cutters

Armstrong-Blum Mfg. Co., 841 N. Francisco Ave., Chicago  
Lewthwaite Mch. Co., T. H., 811 E. 47th., N. Y.

## Scraping Machines

Anderson Bros. Mfg. Co., Rockford, Ill.

## Screw Driving Machines, Automatic

Reynolds Machine Co., Massillon, Ohio

## Screw Machines, Automatic

Automatic Machine and Engineering Co., Inc., Detroit, Mich.

## Screws, Cap, Drive, Lag, Mch. & Wood

Elco Tool & Screw Corp., Rockford, Ill.

## Shafts, Flexible

Strand Co., N. A., 5001 N. Lincoln St., Chgo.

## Shaping Machines

Osborne & Sexton Machy. Co., Columbus, O.

## Shears, Hand

Armstrong-Blum Mfg. Co., 841 N. Francisco Ave., Chicago  
Lewthwaite Machine Co., T. H., 811 E. 47th St., New York  
Whitney Metal Tool Co., Rockford, Ill.

## Special Tools and Machinery

American Tool Works, Inc., Hartford, Conn.

## Speed Reducers, Worm, Spur and Herringbone

Boston Gear Works, Inc., North Quincy, Mass.

## Speed Reducers

Cullman Wheel Co., 1859 Altgeld St., Chgo.

## Spot Welding Machines, Speed.

Esler Electric Corporation, Newark, N. J.

## Sprockets

Cullman Wheel Co., 1859 Altgeld St., Chgo.

## Stamps, Steel and Rubber

Schwerdtle Stamp Co., Bridgeport, Conn.

## Stencils, Brass and Oil Board

Schwerdtle Stamp Co., Bridgeport, Conn.



# Classified Finding Index

## Straightening Machines

Whitney Metal Tool Co., Rockford, Ill.

## Stud Setters

Procurier Safety Chuck Co., 14 S. Clinton St., Chicago

## Tap Extractors

Walton Co., Hartford, Conn.

## Tap Holders

Procurier Safety Chuck Co., 14 S. Clinton St., Chicago

## Tapping Attachments

Procurier Safety Chuck Co., 14 S. Clinton St., Chicago, Ill.

## Tapping Machines and Attachments

Burke Machine Tool Co., Conneaut, Ohio  
 Etico Tool Co., Brooklyn, N. Y.  
 Procurier Safety Chuck Co., 14 S. Clinton St., Chicago, Ill.  
 Whitney Metal Tool Co., Rockford, Ill.

## Thermometers, Resistance Type

Illinois Testing Laboratories, Inc., 150 West Austin Ave., Chicago, Ill.

## Threading Machines, Automatic, Stud

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Threading Tools

Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago

## Tool Holders

Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago  
 Western Tool & Mfg. Co., Springfield, O.

## Tools, Boring

Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago

## Tools, Lathe and Planer

Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago

## Tools, Machinists'

Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago

## Tube Flanging Machines

Grant Mfg. & Mch. Co., Bridgeport, Conn.

## Universal Joints

American Tool Works, Inc., Hartford, Conn.  
 Boston Gear Works Inc., Norfolk Downs, Mass.

## Used and Rebuilt Machinery

Akron Equipment Co., Akron, Ohio  
 Automatic Machine & Engineering Co., Inc., Detroit, Mich.  
 Bennett Machinery Co., 30 Church St., New York, N. Y.  
 Box Properties, Philadelphia, Pa.  
 Brotherhood & Son, Percy M., 25 Church St., New York, N. Y.  
 Brown Machinery Co., St. Louis, Mo.  
 Brownell Machinery Co., Providence, R. I.  
 Cincinnati Mch. & Supply Co., Cincinnati, O.

## Used and Rebuilt Machinery—Cont.

Donahue Steel Products Co., 74th and Ashland Ave., Chicago  
 Eastern Machinery Co., Cincinnati, O.  
 Elyria Belting & Mch. Co., Elyria, Ohio.  
 Esley Machinery Co., E. L., 825 Keos St., Chicago, Ill.  
 First United Finance Corporation, 215 West Randolph St., Chicago, Ill.  
 Gouse, James, J. Boston, Mass.  
 Hill, Clark & Co., 645 W. Washington Blvd., Chicago, Ill.  
 Howarth Co., C. C., Detroit, Mich.  
 Hyman & Sons, Joseph, Philadelphia, Pa.  
 Indianapolis Machinery & Supply Co., Indianapolis, Ind.  
 Interstate Mch. Co., 139 S. Clinton, Chgo.  
 Iroquois Machinery Co., Buffalo, N. Y.  
 Johnson & Sons Machinery Co., Wm. C., St. Louis, Mo.  
 Jones Machine Tool Co., Cincinnati, Ohio  
 McDonald Machinery Co., St. Louis  
 Marr-Galbreath Mch. Co., Pittsburgh, Pa.  
 Midwest Equipment Co., 625 W. Lake St., Chicago, Ill.  
 Mid-West Machine Tool & Supply Company, Davenport, Iowa  
 Miles Machinery Co., Saginaw, W. S., Mich.  
 Norton-Broadway Mch. Co., Cincinnati, O.  
 O'Brien Machinery Co., Philadelphia  
 Oviatt & Co., D. C., Cleveland, Ohio  
 Patterson Tool & Supply Co., Dayton, Ohio  
 Osborne & Sexton Mch. Co., Columbus, O.  
 Reeve-Fritts Co., 558 W. Washington, Chgo.  
 Reliance Machinery Sales Co., Pittsburgh, Pa.  
 Russell Machine Co., Pittsburgh, Pa.  
 Scott-Bansbach Mch. Co., 4607 W. 20th St., Chicago  
 Segal Machinery Co., 809 W. Lake St., Chicago, Ill.  
 Seyfert's Sons, Inc., L. F., Philadelphia, Pa.  
 Simmon Machine Tool Corp., Albany, N. Y.  
 Strong, Carlisle & Hammond Co., Cleveland, Ohio  
 Tempa Bros. Motor Co., Brooklyn, N. Y.  
 United Machinery & Supply Co., St. Louis, Mo.  
 Victor Machinery Exchange, 251 Center St., New York City  
 West Penn Machinery Co., Pittsburgh, Pa.  
 White Mch. Co., A. D., 108 N. Jefferson St., Chicago  
 Wigglesworth Mch. Co., Cambridge, Mass.  
 Winterer, Herman, L., Philadelphia, Pa.

## Vises, Drilling Machine

Armstrong Blum Mfg. Co., 341 N. Francisco Av., Chicago  
 Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago  
 Graham Manufacturing Co., Providence, R. I.  
 Martin Tool & Die Works, J. E., Springfield, O.

## Vises, Machinists'

Western Tool & Mfg. Co., Springfield, O.

## Vises, Milling Machine

Graham Manufacturing Co., Providence, R. I.

## Vises, Shaper

Graham Manufacturing Co., Providence, R. I.

## Welding Machines, Electric Spot

Eisler Electric Corporation, Newark, N. J.

## Welding Machines, Resistance

Eisler Electric Corporation, Newark, N. J.

## Wood Screws

Eico Tool & Screw Corp., Rockford, Ill.

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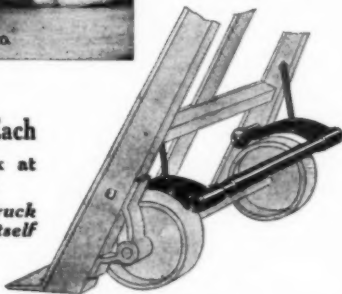
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Brake pays for itself  
every week."*



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Chicago, Ill.

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## Used and Rebuilt Machinery Section

Lists of Used and Rebuilt Machinery, either For Sale, Wanted, or For Exchange, set in uniform style, will be published in the Classified Section at the rate of 60 cents a line across the page, each issue, plus \$3.00 for name and address. Minimum charge, \$6.00. No display permitted.

Write directly to those offering the machines for sale, for prices and full descriptions. If what you seek is not advertised, use the blank enclosed to make known your wants in either new or used machinery and the publisher will pass them along to the advertisers.

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**Automatic Machine and Engineering Co., Inc.**  
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#### AUTOMATIC SCREW MACHINES

Bought, sold or traded—all makes and sizes for bar and chucking work.

### FOR SALE BY

<b>James J. Gouse, Inc.</b> - - -	<b>137 Oliver Street, Boston, Mass.</b>
Grinder, sur. Dia. No. 3, 48"x12"x12".	Press, Lucas forcing, 30 ton.
Lathe, L. & S. sel. hd., 20"x20".	Press, No. 4 Z. & H., inclinable.
Press, horn., Max-Am. No. 440 A grd.	Shaper, Steptoe 24", geared.
Drill, 4 spdl. L.-G., ind. m. d., 1" cap. p. f. & b. g., var. spd. 220-3-60, like new.	

### FOR SALE BY

<b>Herman L. Winterer, -</b>	<b>945 North Front Street, Philadelphia, Pa.</b>
Electric trucks, 2 ton Elwell Parker.	Lathe, 15"x8' Sidney, q. c. g., s. b. g., c. s.
Lathe, 36"x14' Johnson, q. c. g., d. b. g.	Miller, No. 3 Becker Univ., b. b.
taper attachment, c. s.	Press, No. 44 Adriance.
Lathe, 32"x12' Pittsburgh q. c., d. b. g.	Presses, Waterbury Farrell, geared
Lathe, 26"x11' Wickes semi, q. c., d. b.	pillar.

### FOR SALE BY

<b>Brownell Machinery Co., -</b>	<b>150 Pine St., Providence, R. I.</b>
Automatic drop, 500 lbs. standard type.	
Hammer, 125 lbs. Beaudry Champion power forging.	
Miller, No. 3 Cincinnati h. p. vertical.	
Planer, 24"x24"x6' Whitcomb, 2 heads.	
Saw table, No. 2 Crescent combination.	

### FOR SALE BY

<b>Bennett Machinery Co. -</b>	<b>30 Church St., New York City</b>
Grinder, No. 50 Heald, hydraulic fd.	Miller, No. 14 B Spec. Milw. pl. m. d.
Lathes, 27"x16' and 18"x8' Prentice.	Punch and shear, No. 23 Pels.
Lathe, 14-16"x6' Lodge & S. cone.	Radial drill, 4' Cincinnati-Bickford.
Miller, No. 1 Hendey universal.	Shaper, 14" G. & E., b. g., m. d.
Miller, No. 3 S Cincinnati univ.	Turret lathe, No. 4 W. & S. univ.

### FOR SALE BY

<b>The Reeve-Fritts Co., 558-560 W. Washington Blvd., Chicago, Ill.</b>	
Arbor press, No. 14 Atlas on stand.	Milling machine, No. 2 Rock. plain.
Drill, 25" Superior, b. g. & p. f.	Pinion cutter, Sloan & Chase, auto.
Drill, Washburn, 3 spdl., p. f., b. b.	Pipe machine, Merrell, 6" cap.
Grinder, Wisconsin univ., c. & t.	Planer, 24x24x6 American.
Milling machine, No. 3 Rock. hand.	Shaper, 20" Ohio heavy duty.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**Midwest Equipment Co., - 628-30 W. Lake St., Chicago, Ill.**

Arc welder, General Electric, 200 amp. cap., m. d., complete.....	275.
Disc grinder, No. 2 Gardner 18", motor drive.....	150.
Drill press, No. 2 Avey, 4 spindle, 15" overhang, 95% new.....	400.
Gear hobber, No. 3 Barber Colman, with arbor and gears.....	250.
Lathe, 16"x6' Lodge & Shipley, geared head, motor driven, complete..	250.
Lathe, 19"x8' Sidney, quick change, double back geared, complete.....	335.
Milling machine, No. 2 Cin. Univ., div. head, tail stock, vise and arbors	450.
Milling machine, No. 2 1/2 Rockford, univ., dividing head, vise, arbors..	650.
Press, 30 ton Lucas straightening.....	150.
Punch press, No. 4 Marshalltown, o. b. i., bolster plate, like new.....	225.
Punch & shear, No. 53 Beloit, with angle cutting attachment.....	145.
Radial drill, 30" Fosdick, single pulley drive.....	350.
Shaper, 7" Rhodes, complete with vise.....	125.
Shaper, 14" G. & E., double back geared, vise.....	190.
Shear, power square, 50" Excelsior, 10 ga., 15" gap, like new.....	300.
Planers, Lathes, Screw Machines Air Compressors, Woodworking Machines.	

### FOR SALE BY

**The Jones Machine Tool Co., Front & Pike Sts., Cincinnati, Ohio**

Brake, (press) Ohl 10'.....	\$1000.	Press, No. 164 1/2 Toledo-toggle..	400.
Boring mill, No. 21 Lucas.....	1000.	Press, No. 40B Robinson, d.c.	575.
Boring mill, No. 32 G. & L.....	1750.	Press, No. 42 Robinson, d. c..	1200.
Filing machine, Thiel.....	375.	Presses, boring 6, No. 21 Con-	
Gear cutter, No. 13 B. & S.....	375.	solidated, each.....	125.
Gear hobber, No. 12 Barber-C.....	375.	No. 14 Toledo adjustable table	425.
Grinder, No. 1 Diamond surf.....	475.	No. 6 Toledo b. g. inclinable..	575.
Grinder, 16x72 Landis for cr.....	575.	Pipe machine, 8" Saunders.....	275.
Lathe, 24x12 B. & E., quick c.....	575.	Radial, 4' Fosdick cone drive.....	175.
Lathe, 32x12 B. & E., quick c.....	725.	Radial, 5' American, g. h.....	1000.
Lathe, 36x14 Bradford.....	375.	Shaper, 16" American, b. g.....	175.
Miller, No. 2 Owen universal.....	200.	Shaper, 24" Queen City.....	475.
Miller, No. 2M Cin'ti, s. p.....	575.	Square shear, 52" Bertsch 3/8"	475.
Millers, Nos. 2 & 3 Cin'ti, s. p.....		Square shear, 10' pwr., 14 ga.....	450.
Press, No. 3 1/2 B Bliss-toggle.....	450.	Wheel lathe, 80", double head	325.

We have a large stock of Lathes, Radials, Shapers, Square Shears,  
Presses, etc.,—all sizes. Let us have your inquiries.

### FOR SALE BY

**Interstate Machinery Co., - 130-2 So. Clinton St., Chicago, Ill.**

Beader, Voder 20" thr., 14 ga. cap.	No. 4 Walsh; No. 3 Rockford,
Bending rolls, 8' Kling Pyramid 1/4"	Presses, dbl. crank, No. 10 Wells, 6'
cap., m. d. 8' 10: 8' 14: 3' 14.	bet. hous. 120 ton cap.; No. 40 Robi.
Brake press, 10' 10 ga. Ohl m. d.	No. 92-C & 92G Tol.; No. 24 E Bliss.
Brakes, all sizes, hand and power.	Press, No. 25 1/2 Bliss horn geared.
Folders, 30", 36" and 42"	Shapers, 96% new; 20" Kelly s. p. d.;
Grinders, disc No. 24 Gard., 53" vert.	17" S. & M.; 15" Kelly \$85.
sp., No. 8 Besly dbl. end with press	Shears, ring and circle, all sizes.
Grinder, surface No. 2 Brown & S.	Straightening rolls, 54" m. d.
automatic, with magnetic chuck,	Shears power, 90% new Pexto, 52"
Lathes, 16x8 Walcott; 15x6 Champion	16 ga.; 62" 16: 8' 18: 10' 18: 62" 10;
with chuck, complete \$100.	all geared motor drive; 10' 14 ga;
Millers, vert. No. 1 Knight; No. 2A	Niagara; 10' 3/16" Chicago Steel.
Becker.	Shears, throatless 1/2" 10 ga., 14 ga.
Presses, o. b. i. No. 7 Bliss bk. grd.;	Welder, 15 k. w. Thompson 24" thr.
No. 18-C Bliss; No. 4 Niagara;	Wire straightener, No. 2 Wells 7' c.o.

Middle-west's Most Complete Stock of Sheet Metal Machinery.

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Automatic, No. 0 Brown & S. b. d.  
Air compressors, 30 to 2500 cu. ft.  
Blower, Spencer turbine, 1800 c. f.  
Bolt cutter, 1" Landis, 3 hds., m. d.  
Bolt cutter, 2 1/2" Acme, sgl. hd. m. d.  
Boring mill, 30" Bullard, turret hd.  
Boring mill, 36" Bullard, rapid prod.  
Boring mill, 72" Pond, 2 hds., b. d.  
Boring mill, 10-16" Betts, 2 hds. m. d.  
Boring mill, horiz. D. & H., 5-1/2" bar.  
Brake, 5" press type, 10 gauge.  
Brake, 8" D. & K. 10 ga. box & pan.  
Brake, 10" Dreis & K. 1/2", m. d.  
Bulldozers, Nos. 2, 4, 6, 28, 29 & 30.  
Cranes, Electric Traveling.  
Derrick, 10-ton, 60-ft. boom.  
Die threader, Smalley General, dies.  
Die sinker, No. E-3 Keller, m. d.  
Drill, bench, 12" Buffalo, a. c., m. d.  
Drill, mul. 4-sp., Moline Hole Hog.  
Drill, radial, 2 1/2" Fossick, t. a., b. d.  
Drill, radial, 3 1/2" Cin-Bickford, s.p.d.  
Drill, radial, 4" Prentice, t. a., b. d.  
Drill, radial, 6" Dreses, s. p. d.  
Flanger, McCabe, 1/2" capacity, dies.  
Gear cutters, 11", 24" & 36" Gleason.  
Gear cutter, spur, 36"x10" Newark.  
Gear hobber, No. 4 Sch. & Sch. 118".  
Grinder, centerless, No. 2 Cincinnati.  
Grinder, centerless, No. 4-C Detroit.  
Grinder, internal, No. 70 Heald.  
Grinder, rad., 14" M. & D., m. d.  
Grinder, surface, No. 16 Blanchard.  
Grinder, surface 14" Arter.  
Grinder, surface, No. 2 Reid, b. d.  
Grinder, tool & cut., No. 2 Walker.  
Hammer, Blacker, power, 35-lbs.  
Hammer, 80-lb. Bradley, cush. helve.  
Hammer, 200-lb. Bradley, cush. helve.  
Hammer, 200-lb. Bradley, compact.  
Hammers, Nos. 2-B, 3-B, 4-B, Nazel.  
Hammers, steam, 600 lb. to 6000 lbs.  
Header, No. 2 Wat. Far. o. d., tr. at.  
Jacks, 35-ton Barrett, ball bearing.  
Keyseater, No. 0 & 3 Baker.  
Lathe, 14"x6" Hendey, q. c. g., m. d.  
Lathe, 16"x6" LeBlond, q. c. g., d. b. g.  
Lathe, 24"x16" Bridgeford, g. hd. m. d.  
Lathe, 26"x20" Bridgeford, g. h. m. d.  
Lathe, 48"x26" Bridgeford, g. hd. m. d.  
Lathe, turret, No. 6 Warner & S.  
Lathe, turret, 18" Libby, m. d.  
Lathe, turret, 24" Steinle, 6 1/2" hole.  
Lathe, tur., 26" Gisholt, 9" hole, m. d.  
Lysholm tables, 72"x30".  
Miller, duplex, 24" Cincinnati, auto.  
Miller, plain, No. 2-A Milwaukee.  
Miller, universal, No. 3 LeBlond.  
Nut tapper, 6-spindle Acme, 2".  
Nut, tapper, 1/2" Acme, 4-spindle.  
Motors, a. c. & d. c.  
Pipe machine, 2" Landis.  
Pipe mchs., 8" Oster, 8" Williams.

Planer, 30"x30"x10' Woodward & P.  
Planer, 48"x48"x18' Cint., belt drive.  
Planer, o. s., 36"x36"x16" D. & H.  
Planer, o. s., 48"x48"x16" D. & H. m. d.  
Planer, rotary, 48" Niles, m. d.  
Presses, arbor, No. 17 Greenerd.  
Press, automatic, McDonald.  
Press, o. b. i. Ferracute C1, 3" stroke.  
Press, o. b. i., No. 5 Rockford; 8500 lb.  
Press, hyd. tire, 300-ton W.-S.-M.  
Press, hydraulic, 1,000 ton United.  
Press, hyd., 400-ton Robertson, m. d.  
Press, hyd 100-ton Watson-Stillman.  
Press, s. s., 13"x19 1/2", 2" stroke.  
Press, No. 784 Bliss, t. r. 10" str.  
Press, No. 92 B Toledo, d. c. 2 1/2" str.  
Press, No. 96-A Toledo, d. c. 5" str.  
Press, screw, No. 87 Niagara.  
Press, wheel, 200-ton Lourie.  
Punch, hand, Shatz, bar and angle.  
Punch & sh. No. 6 L. & A. 1/2" thru 1/4".  
Punch, No. 3-A Royersford, 20" thrt.  
Punch, EF Cleveland, 36" thrt., 1-1/2"  
Punch, multiple, No. 5 H. & J. 10".  
Riveters, air, hammer, spinning.  
Rolls, bending 7"x8" Cleveland.  
Rolls, bend, 8"x8" Bertsch, d. e. b. d.  
Rolls, bending, 12"x1 1/2" H. & J. d. e.  
Roller, thread, Nos. 30-40 & 60 W.-F.  
Saw, band, metal No. 2 Klem, m. d.  
Saw, band, No. 8 Marvel.  
Saw, cold, 48" Newton, m. d.  
Saw, friction, Nos. 2 & 3 Ryerson.  
Saw, hack, No. 5 Marvel, 6"x6".  
Saw, hack, No. 4 Robertson, 8"x8".  
Screw Mchs. Nos. 52, 53, 55 Nat. A.  
Shapers, 16", 20", 24" & 36" G. & E.  
Shaper, 48" Morton draw cut, m. d.  
Shear, angle, 6"x6"x1" H. & J.  
Shears, alligator, 1 1/2", 2", 3" & 4".  
Shear, bevel, Lennox 1/2", b. d.  
Shear, No. 1 Gray, 3/16", 34" gap.  
Shear, slitter, gang 36", Yoder, m. d.  
Shear, guil. No. 5 H. & J. 4" sq., m. d.  
Shear, rotary, 1/2" Ryerson.  
Shear, 36"x16 ga. Pexto, foot.  
Shear, squ., 60"x3/16" McSherry b. d.  
Shear, squaring 8"x14 ga. Ohl.  
Shear, sq. 10"x10 ga Kutscheid, m. d.  
Shear, squar. 12" Niagara, 10 ga., m. d.  
Shear, 54" x 1/2" Garrison, 24" gap.  
Shear, 12" x 1/2" Wheeling, 31" gap.  
Slotter, 18" Dill, motor drive.  
Straight'r, 48" United, 16 ga. 13 rolls.  
Straightener, 1 1/2" round Abramson.  
Straightener, 4" round Abramson.  
Swaging mche., No. 5-A Standard.  
Testing mche., Brinnell hardness.  
Testing mches., 50,000 & 100,000-lb  
Tumbling barrel, 18"x36", b. d.  
Upsetters, 1" to 6".  
Welders, spot and butt.  
Woodworking Machinery.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**Brown Machinery Co.,** - - - **2333 N. 9th St., St. Louis, Mo.**  
 Drills: 24", 26" and 32" Barnes and Rockford; 4 spindle Moline.  
 Grinders: No. 6 Besly dbl. spindle; No. 220 Badger auto. disc; 12x30" Modern, plain, s. c. c. s.; No. 12 Brown & Sharpe, universal tool.  
 Hammer, 40 lb. Bradley, halve.  
 Lathes, 30" Blaisdell; 28-40" Lodge & Shipley; 26" Putnam, t. a.; 20" American, t. a.; 16" L. & S.; 16" Monarch; 12" & 14" Sen. Falls, q. c. g.  
 Millers: No. 2 Hende-Norton, univ.; No. 3 Fox; No. 4 Hende Lincoln; No. 3 Kemsmith, universal.  
 Press, No. 7 Zeh & Hahneman, Nos. 1, 3, 4 Loshbough Jordan.  
 Punch, Cleveland C. 4 in 4"; Rock River Style L 4 in 4".  
 Shaper, 24" Ohio.  
 Shear, 50" 10 ga Excelsior gap.  
 Threaders: 4" Geometric; National 1 1/2" double head.

### FOR SALE BY

**The Elyria Belting & Machinery Co.,**

**Corner Williams and Buckeye Streets,** - - - **Elyria, Ohio**  
 Double end punch, 1" thru 1", motor drive, arch. jaw.  
 Gold and silver crusher and grinder, No. 1 Ideal.  
 Hammer, power, 75 lb. Beaudry Champion.  
 Hoist, 1 ton Reading, 220 volt, 3 phase.  
 Lathe, 24" x 12" Advance, 92" centers.  
 Lathe, American Tool Works, 36" swing, 14' bed.  
 Presses, No. 5A Toledo inclinable, 3" stroke.  
 Presses, Nos. 55, 56, 56 1/2 Consolidated forging, 4" and 6" stroke, geared, s. s.  
 Washing machine, Laundry, Jefferson 6 pocket.

### FOR SALE BY

**Reliance Machinery Sales Company**

**1405 Brighton Road, N. S.** - - - - - **Pittsburgh, Pa.**  
 Automatic, 3/4" cone, 4 spdl., m. d.  
 Boring mill, 36" Bullard New Era.  
 Drill, Colburn, 4 spindle, 2 1/2" cap.  
 Lathe, 48" x 20' Bridgeford, grd. hd.  
 Lathe, 30" x 18' Lehman, grd. hd.  
 Lathe, 30" x 16" L. & S., d. b. g.  
 Lathe, 27" x 16" American grd. head, motor drive, oil country taper.  
 Miller, No. 2-AS Milwaukee, s. p. d.  
 Miller, No. 2 1/2 Rockford, vert. att.  
 Miller, No. 2 Cincinnati universal.  
 Press, P-3 Ferracute punch, m. d.  
 Press, No. 3 Niagara, o. b. i.  
 Press, trimming, 6 1/2" shaft Massillon.  
 Press, Bliss No. 5 1/2 double crank.  
 Planer, 36" x 36" x 8 Gray, 2 heads.  
 Punch, No. 43 Whittemore comb.  
 Punch, Bertsch, 12" tht., arch. jaw, 4" x 4", m. d.  
 Riveters, Nos. 2-A, 3-A Hi-Speed.

### FOR SALE BY

**McDonald Machinery Co.,**

**1535 N. Broadway, St. Louis, Mo.**

Bolt mchs., Landis & Acme 1 1/2".  
 Boring mill, Lucas & Bul. hor. & vert.  
 Brake, D. & K. 6" 10 gauge, power.  
 Drills, Cin-Bickford 3" & 3 1/2" radials.  
 Gear hobber, G. & E. 24" & 60".  
 Grinders, B. & S. No. 2 surf. & univ.  
 Grinders, P. & W. 14" vert. surf., b. b.  
 Keyseaters, M. & M. No. 2.  
 Lathes, Hende 14" x 6"; Hende 20" x 10", grd. hd.; 50 others in stock.  
 Milling machines, B. & S. No. 5, vert.  
 Milling machines, Van Norman No. 2 duplex; B. & S. No. 1 1/2 Cinc.  
 No. 1 1/2, Hende No. 1-B, Kemp.  
 No. 3; Ohio No. 29 B. & S. No. 2-A single p. d., all universal; No. 3, Kemp. No. 1, LeBlond No. 3-H.; B. & S. No. 3-B, s. p. d., all plain, Cincinnati 18" automatic.  
 Pipe mchs., Curtis, B. & K. 12" m. d.  
 Punch presses, Bliss No. 20; Bliss No. 21 1/2. Rob. No. 2 1/2 grd., o. b. i.  
 Screw machines, Foster No. 7.  
 Shapers, G. & E., S. & M., Cin., Ohio, Steptoe, Queen City, 12", 16", 18", 20", 24" and 26".  
 Square shears, Niag. 62" 18 ga., pwr.  
 Turret lathes, W. & S. No. 2A univ.

## USED AND REBUILT MACHINERY

### FOR SALE BY

Joseph Hyman & Sons, • 2600 E. Tioga St., Philadelphia, Pa.

Stamping Press Specialists. 1200 Presses In Stock.

#### GAP FRAME DOUBLE CRANK PRESSES

No. 21 Bliss, flywheel, bed 34"x9", opening in back 25", wgt. 4100 lbs.

No. 23-D Bliss, flywheel, bed 72"x21", opening in back 60", wgt. 13,000 lbs.

No. 24-B Bliss, grd., tie rod, bed 55"x14", opening in back 42", wgt. 16,000 lbs.

No. 203-D Toledo, s. grd., bed 52"x13", opening in back 43", wgt. 10,600 lbs.

#### KNUCKLE JOINT EMBOSSEING PRESS.

No. E-52 Ferracute, 150 tons pressure, width bet. uprights 13", wgt. 7000 lbs.

#### AUTOMATIC DROP PRESS.

No. 2 Standard, 200 lb. belt lift, gap frame, 4 poppets, wgt. 4300 lbs.

### FOR SALE BY

Marr-Galbreath Machinery Co.,

58 Water St., Pittsburgh, Pa.

Air compressor, 10x10" Chgo., n.a.b.

Air receivers, 4"x18", 150 lb., (14).

Angle roll, No. 3 Niagara, 1 1/2"x3/16".

Beading machine, No. 100 Niagara.

Bolt cutter, 8" Geometric, m. d.

Boring mill, 30" King; and Bullard.

Boring mill, horizontal 3" bar, b. m.

Brake, 8"x10 ga. Chicago, pan, m. d.

Brake, 52"x18 ga., P S. & W., hand.

Brake 10" Keene toggle, 16 gauge.

Brakes, hd, 10", for 18 ga. Robinson.

Broaching mch. Nos. 1 & 3 LaPointe

Cold header, 8" W-F., solid die.

Crimping roll, 6 1/2" Robinson, 16 ga.

Drills, 20" b. g., p. f.

Drill, 24" Rockford, g. f. taper att.

Drill, 25" Snyder, s. h., b. g.

Drill, radial, 5" Western, g.b., m. d.

Drill, radial, 3" Drees.

Drill, 26" Prentice, b. g., s. h., m. d.

Forging mch., 1 1/2", 3" & 3 1/2" (steel).

Grinder, No. 1 1/2 Landis universal.

Grinder, universal t. & c. Nos. 2 & 3.

Grinder, 18-D. Rowbottom, o.h.b.b.

Hack saw, Millers Falls, 5x5".

Hack saw, 8x5" Racine, belt.

Hack saw, 9x9" Peerless, m. d.

Hammer, 800 lb. Erie stm. forg., s.f.

Hammer, 1000 lb. Chbg., steam drop.

Housts, chain, 1 to 8-tons capacity.

Jointer, (wood) 6" Wallace, motor.

Jointer, 8" F. & E., rd. hd.

Keyseater, No. 2 Mitts & Merrill.

Lathe, 13"x6" Seneca Falls, q. c. g.

Lathes, 14"x6" Champion, q.c.g., tur

Lathe, 14"x6" Hendey, m. d., t. a.

Lathe, 18"x6" L. & S. sel. hd. a.p.d.t.a.

Lathe, 19"x10" LeBlond, q. c. g., t. a.

Lathe, 20"x12" Monarch, q. c. g., t. a.

Lathe, 22"x10" 10" Greaves-K., q.c.g.

Lathe, 24"x12" Pgh., q. c. g., chuck.

Lathe, 27"x16" Pgh., t. a., chuck.

Lathe, 30x15" Lehman, gd. hd.

Lathe, 32"x16" Pgh., q. c. g., chuck.

Lathe, 48"x26" geared head, m. d.

Milling machine, plain, No. 4 Burke.

Miller, No. 28 Ohio; No. 3 Cin'ti.

Miller, 2-GS. Hendey, g. b., s. p. d.

Millers, vert., Becker, 3, 4B, 5B.

Miller, universal No. 4 B. & S.

Miller, auto. No. 2-M P. & J., s. p. d.

Motors, 1, 2 & 3 ph., also d. c.

Pipe machine, Williams, 3", s. p. d.

Planer, 30"x10 W. & P., 2-heads.

Press, 42-h.p. Toledo, horn, plain.

Press, No. 6 Toledo, o. b. i., pl m. d.

Press, No. 14 Tol. horn, 3 1/2" & 4" st.

Presses, Nos. 3 & 4 Bliss, punch type.

Press, No. 19, Bliss o. b. i.

Presses, foot, No. 57 Bliss, pendulum.

Press, reducing, No. 61 Bliss, 4" str.

Punches, s. e. 36", 48", 60", 72" thts.

Punch, s. e., Badger, 7" thrt., 8"x8".

Punch, Rapid, 26" thrt., 1"x8", m. d.

Punch & shear, d. e., 9-A., Beloit.

Punch & shear, d. e. 16" thts; 1 1/2"x1"

with angle & bars shear blades, m. d.

Punch & stake riveter, No. 123-C.

Toledo boilermakers.

Riveters, 2-A, 3-A, 5 1/2" H, high speed.

Rolls, bend'g, 10"x5/16" Bertsch, d. e.

Rolls, bending, 8"x8" Bertsch, m. d.

Rolls, bend'g, 5"x5/16" Bertsch, d. e.

Screw machine, No. 0G B. & S.

Shaper, 16" Columbia g. b., s.p.d. 95%

Shapers, 20" Rockford & S & M., cr.

Shaper, 24" P. & J down feed & m. d.

Shaper, 25" S & M., b. g., crk., A-1.

Shear, 72"x3/16"x20" gap, Stoil.

Shears, 4" & 8" Lennox, throatless.

Shears, Alligator, 1", 1 1/2", 2", 3", 4".

Shear, throat, No. 18 Lennox, hand.

Shear, Unishear, 14 ga. 1/2 h. p. mtr.

Shear, rotary, 12" thrt., cap. 10 ga.

Shear, rotary, No. 205 Niagara,

circle attachment, No. 8 ga.

Shear, rotary, 16 ga., Yoder, 24" thr.

Shear, squaring, 8"x14 ga. power.

Shear, 10"x16 ga. Ohl power.

Slotter, 15" Dill, for motor drive.

Slotter, die, Garvin, cone drive.

Tube cutter, Fox 2 1/2" cap.

Turret lathe, 28" Gisholt, 9 1/2" h. s.

Turret lathe, 26"x7 1/2" h. s., Libby.

Wheel press, 60-ton W. S., 34"x5 1/2".

Send us your inquiries.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**United Machinery & Supply Co., 1241 Walton Ave., St. Louis, Mo.**

Bolt cutter, 3 Landis heads, 14".  
Compressor, 10x12 belt drive.  
Drill, 3' radial, swivel table.  
Grinder, wet surface, mag. chuck.  
Hammers, 25 and 50 lb.

Keyseater, No. 2 M. & M.  
Lathe, Barnes, sliding bed.  
Press, No. 56 Toledo.  
Shear, foot 18" gap 36".  
Wheel press, 50 ton, m. d.

### FOR SALE BY

**Temps Bros. Motor Co., - - 802 Myrtle Ave., Brooklyn, N. Y.**

#### ELECTRIC MOTORS.

Factory rebuilt, equal to new. One year guarantee. A. C. or D. C. Single phase, 2 or 3 phase. 1/2 h. p. \$12.50; 1 h. p. \$16.00; 2 h. p. \$20.00; 3 h. p. \$27.50; 5 h. p. \$32.50. Others to 50 h. p. Also electric grinders. Special slow-speed or high-speed motors built to order. Generator sets. Your old motor re-wound to suit any special requirements. Tell us your motor problems.

### FOR SALE BY

**Segal Machinery Co., - 809 W. Lake St., Chicago, Ill.**

Comb. punch & shear, No. 55 Beloit with angle shear att., 15 dies & p. \$325.  
Lathe, 16x6 Hendy yoke head, quick change gear, taper attachment, 250.  
Lathe, 20x8 Hendy yoke head, quick change gear, taper attachment, 350.  
Lathe, 38x16 Lodge & Shipley quick change gear, 4 sp. motor & control 450.  
Miller, No. 1 Kempsmith, plain, late type, with all power feeds, 175.  
Miller, No. 2B Milwaukee, universal, single pulley drive, all pow. fds., 250.

### FOR SALE BY

**Box Properties, Inc., - 951 North Front Street, Philadelphia, Pa.**

Arbor press, No. 3 J Greenard.  
Boring mill, P. & H. 10', floor.  
Boring mill, 42" Bullard.  
Centering machine, 5" Whiton.  
Drill, 30" tapping attachment.  
Drill, 40" Universal, radial.

Drill, 4 spindle Allen, b. b.  
Gear cutter, 36" Gould & Eberhardt.  
Lathe, 42"x17" Bement.  
Lathe, 19" 21"x8'6" Sidney, t. a.  
Millers, No. 0 Rockford.  
Tur. lathes, No. 2A W. & S.; 18" Libby

### FOR SALE BY

**Mid-West Machine Tool & Supply Co., Davenport, Iowa**

Automatics, Nos. 0 & 00 B. & S.  
Drill, Allen 6 spindle, h. s.  
Grinder, 10"x36" Norton.  
Grinder, No. 10 B. & S. ext.  
Grinder, No. 22 Heald rotary surf.

Hobbers, Nos. 3, 12-B & C.  
Lathe, No. 9 LeBlond multi-cut.  
Millers, Nos. 1 & 2 Brown & Sharpe.  
Radials, 3' Cincinnati Bickford.  
Turret lathe, No. 6 Warner & S.

Partial list; send us your inquiries.

### FOR SALE BY

**Wigglesworth Machinery Company**

**199 Bent Street,**

**Cambridge, Mass.**

Automatics, No. 00 B. & S., \$350.00  
Automatic, 9/16", 5 spdl. Nat. Acme.  
Boring mill, No. 0 G. & L.  
Grinder, No. 3 Bryant internal.  
Lathe, 18"-20"x20" L. & S.

Miller, 6"x18" P. & W. thread.  
Miller, No. 2 LeB. hvy. univ., m. d.  
Miller, 48"x24"x10" Ingersoll.  
Planer, 30"x30"x8' Clev. openside.  
Press, No. 3A Bliss.



## USED AND REBUILT MACHINERY

### FOR SALE BY

**First United Finance Corporation, 215 W. Randolph St., Chicago, Ill.**

Automatic screw machines, Brown & Sharpe No. 00, 0, 2 and 19, Serial Nos. 1000 to 7000.....	\$90 to \$375.
Automatic screw machines, Brown & Sharpe high speed, No. 00, 0, and 2, Serial Nos. 6000 to 11,500.....	550. to 800.
Gear hobber, B. & S. No. 6, 72".....	1800.
Grinder, No. 2 Reed surface, magnetic chuck.....	275.
Lathe, 12"x5' Hendey, q. c. g., draw bar, chuck, 10 collets.....	275.
Lathe, 14"x6' Hendey, q. c. g., draw bar, chuck, 16 collets.....	375.
Miller, No. 14B Milwaukee special Universal, vertical head, 5 h. p. direct motor connected.....	900.
Radial drill, Bickford 4'.....	300.

20 Lathes from 14"x6 to 38"x32'.

### FOR SALE BY

**Wm. C. Johnson & Sons Machinery Co.,**

**1211-1223 Hadley Street,**

**St. Louis, Mo.**

Bar shear, 5"x14".  
Boring mill, 36" Gisholt.  
Drill, 14" Mason high speed.  
Drill, 22" Barnes, back geared.  
Drill, 24" Prentice, sliding head.  
Drill, 25" Barnes back geared.  
Drill, 28" Barnes sliding head.  
Drill, 1-spindle Avey.  
Drill, 3-spindle Avey.  
Grinder, Wells Bros. universal.  
Grinder, 12"x60" Landis universal.  
Hammer, 60 lb. Bradley helve.  
Hammer, 600 lb. steam.  
Lathe, 16"x9' Lehman.  
Lathe, 24"x12' Lodge & Shipley.  
Lathe, 24"x12' Schumacher & Boye.  
Lathe, 30"x15' Lodge & S., q. c. g.  
Lathe, 36"x15' American, q. c. g.  
Miller, No. 1 U. S. hand.

Miller, No. 5-B Brown & Sharpe.  
Pipe machine, 8" Williams.  
Planer, 24"x24"x6' iron.  
Planer, 42"x42"x26' Wheeler, 2 hds.  
Press, No. 57 Swaine straight back.  
Press, No. 14 Bliss toggle.  
Press, No. 3 Toledo.  
Press, No. 37 Niagara str. back.  
Press, No. 24 Toledo cam drawing.  
Press, No. 723 Toledo cam drawing.  
Punch, No. 14 W. W., 12" throat.  
Punch, double end, two 20" throats,  
capacity 1" in 1".  
Screw machine, No. 3A Warner & S.  
Shaper, 16" Ohio.  
Shaper, 24" American, b. g. crank.  
Squaring shear, 8" power.  
Tapper, auto., Rickert & Schafer.

### FOR SALE BY

**Scott-Bansbach Machinery Co., 4607 West 20th St., Chicago, Ill.**

Automatic screw machines, B. & S., No. 00, 0 and 2.....	\$100. to \$450.
Automatic screw machine, Gridley 4 spindle "F" 14", 18" & 14".....	300. to 400.
Automatic screw machine, 34" Cleveland Model A, No. 27182.....	300.
Drill, 24" Sibley sliding head, b. g. and p. f.....	125.
Drill, 2-spindle H. W., h. s., b. b. heavy duty, class B.....	150.
Gear hobber S. & S. No. 0, capacity 12"x10"x6 1/2" d. p.....	200.
Gear cutter, B. & S. No. 3, 26" for spur gears.....	200.
Grinder, No. 2 Brown & Sharpe automatic surface, magnetic chuck.....	250.
Grinder, Capitol internal, capacity 3/16" to 2" x2".....	75.
Lathe, 18"x6' Hendey quick change, taper attachment, serial No. 19189.....	350.
Lathe, 20"x8' Monarch, d. b. g., q. c. chucks.....	250.
Lathe, 30"x13' H. S. & G. heavy duty, q. c., d. b. g. 16,000 lbs.....	800.
Miller, No. 1Y B. & S., not b. g. but p. f., with vert. attach. and c/s.....	275.
Miller, No. 2H B. & S. plain, cone type, with vise, c/s and arbors.....	400.
Miller, No. 1 Garvin universal, fully equipped.....	250.
Miller, Cleveland universal, No. 1 g. h., fully equipped.....	450.
Miller, No. 2 MU. Garvin universal, fully equipped.....	350.
Miller, 12" Cincinnati, mfg. type, s. p. d., vise and pump.....	150.
Miller, Briggs, G. & E. manufacturing, 16".....	75.
Miller, No. 5 Becker vertical, no rotary.....	300.
Miller, No. 7 Becker, Lincoln type.....	75.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**The E. L. Esley Machinery Co.**

**Telephone Lincoln 6320 - - 825-845 Rees St., Chicago**

Brake, 8', No. 18 gauge, Robinson.  
Press brake, 10' No. 10 gauge Ohl.  
Presses, No. 165-B Consolidated grd.  
Presses, Nos. 19 and 21½ Bliss.  
Presses, No. 5 Toledo, o. b. i.

Press, No. 7-A Niagara.  
Riveters, Nos. 3A, 4A & 5A Hi. Spd.  
Shaper, 32" Columbia. h. d.  
Shears, 10' 3/16" cap. Niagara m. d.  
Shear, Pels M. E. A. No. 16, m. dr.

### FOR SALE BY

**L. F. Seyfert's Sons, Inc., (Monarch Machinery Co. Div.)**

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Milling machine, No. 2 M. Cincinnati, motor drive.

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Grinder, 53" Besly horizontal disc.  
Grinder, 12" U. S. Electric.  
Hammer, No. 3B Nazel pneumatic.

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Lathe, 24" Bullard, vertical turret.  
Lathe, 2½x26 J. & L. flat turret.  
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Lathe, 23"x20" LeBlond, belt drive.  
Lathe, 36"-60"x32" McCabe, belt.  
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D. B. G. Q. C.  
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16"x8" Lodge & Shipley, select. head.  
16"x12" American, geared head.  
16"x12" American, cone head.  
17"x8" Sidney, cone head.  
18"x8" American, geared head.  
18"x8" Greaves-Klusman, cone head.

18"x8" Hendey Yoke Head.  
18"x8" Lodge & Shipley, Sel. Head.  
19"x10" LeBlond, cone head.  
20"x8" American, geared head.  
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21"x10" LeBlond cone head.  
24"x10" Greaves-Klusman, cone head.  
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36"x20" Bridgeford, geared head.  
36"x28" American, geared head.  
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No. 3, 4 Cin. Plain, rect. overarm.  
No. 5 Cincinnati Plain, rect. overarm.  
No. 2, 3, 4 Cincinnati pl., single pulley.  
No. 1 1/2, 2, 3, 4 Cin. plain, cone pul.  
No. 1 1/2, 2, 3 B. & S. Pl., cone pul.  
No. 1 1/2 BS, 2B, 2BS, 3B Mil. pl., s.  
pul. & motor drives, double overarm.  
No. 3 Cincinnati Universal, sgl. pulley.  
No. 1 1/2 A, 3A Owen Univ., cone p.  
No. 3 Ohio Universal, cone pulley.

No. 1 1/2 Brown & S. Univ., cone pul.  
No. 2, 3, 4 Cin. vertical single pulley.  
No. 3 Toledo vertical, single pulley.  
No. 1 1/2 B, 2 1/2 B Milwaukee Vert., s.p.  
No. 3, 6 Becker Vertical, single pul.  
18", 24" Cincinnati duplex automatic.  
18, 24, 48" Cincinnati Plain Auto.  
40" Ohio Tilted Rotary.  
No. 21 Brown & S. Auto., sgl. pul.  
No. 33 Kempnath Production, sgl. pul.

## SHAPERS

16" Cincinnati, cone pulley.  
16, 20, 24, 28" G. & E., cone pulley.  
24", 28 Gould & E., single pulley.  
16, 20, 25" Smith & Mills, cone pul.

20, 26" Kelley, cone pulley.  
24" Potter & Johnson Univ., cone pul.  
24" American, single pulley.  
20" American, single pulley, late type.

## MISCELLANEOUS

No. 3, 4, 13, 13H B. & S. Gr. Cut.

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36" Bullard Mill, 2 heads, b. d.  
4' Cin-Bickford, gear box, s. p. d.  
3"x36" J. & L. s. p. d. turret lathe.  
Peerless Hack Saw, cap. 9x9", m. d.  
10"x42" South Bend Lathe.  
21"x8' LeBlond c. c. g. lathe.  
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200 & 500 ton Hydraulic Presses.  
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50" Bertsch pw. Sh. 16" gap, 3/16" cap.  
No. 4A Bliss Adjust. Bed Press, m. d.  
No. 3 D. & K. Alligator Shear, 30" kn.  
50 H. P. Bruce Abbott Ver. Gas. Eng.  
100 H. P. Semi Diesel Oil Engine.  
8' Keene hand brake, cap. 16 gauge.  
300 ton Caldwell hydraulic wheel press.  
24" C. & E. & 32" Cin. m. d. Shapers.  
10' x 1 1/2" S. E. Bend. Rolls, b. d.  
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42" Bullard New Era bor. mill, s. h., m. d.

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3-A Universal Horizontal Boring Mill, S. P. D., m. d., rotary table.  
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No. 4 Cincinnati Universal Grinder.  
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10' Betts Vertical, rapid traverse,  
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36" Bullard, New Era, M. D.

24" Bullard, New Era, M. D.  
3½" bar Universal, Horizontal.  
No. 40 Landis, floor type, M. D.

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No. 1 Avey, 2-Sp., BB, power fd.  
24" Cincinnati sliding head, T. A.

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4' American, pl., gear box, m. d.  
6' American, plain, motor on arm.  
6' American, pl., gear box, m. d.

## SHAPERS

No. 14 Cochrane-Bly Univ. s.p.d.  
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24" Milwaukee, cone.

## PLANERS

24"x24"x7' Cincinnati, Tu-Speed  
48"x36"x10' Cincinnati, mtr. dr.  
48"x48"x26' Cincinnati, mtr. dr.

## MILLING MACHINES

No. 2 Brown & Sharpe, plain.  
No. 2 Cincinnati, H. P., S.P.D.  
No. 3-B Milwaukee, DOA, m.d.

No. 1-M Cincinnati Univ., s.p.d.  
No. 2-A Brown & S. Univ., m.d.  
No. 3 Brown & S. Univ. R. T.

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16"x8' Hamilton, quick change.

17"x 8' LeBlond, quick change.  
24"x14' LeBlond.

### TURRET LATHES and SCREW MACHINES

Automatic, National-Acme.  
1½" cap. Smurr & Kamen.

2"x24" and 3"x36" J. & L.  
1" Pratt & Whitney.

### SHAPERS

14" Niles, traveling head.

24" Rockford, back geared.

### DRILLS

Baush No. 1, multiple spindle.  
32" Hoefer, sliding head.

6' ceiling.  
44" Stover sensitive.

### MILLING MACHINES

No. 1½ American plain.  
No. 25 Becker plain.

18" Cincinnati automatic.  
No. 5 Becker vertical.

### MISCELLANEOUS

Band saw, Clark, compound.  
Band saw, Napier 10"x10".  
Gear miller, No. 1 Bilton.

Sand Blast, Boland.  
Shear, Loy & Nawrath ¾" cap. 10'.  
Shear, Pettingell, 60" throat.

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**MACHINERY** THE **COMPANY**  
**COLUMBUS** Dept. H. **OHIO**

## All Alone

Manager of Hotel (where a newly married couple are staying): And is there anything else I can do for you folks? (The fifth time he asked the question.)

Young Husband: Yes, some honeymoon salad.

Manager: May I ask what are the ingredients?

Young Husband: Just lettuce alone.

## Why, Tommy?

Thanks very much, said the school teacher, as Tommy offered her some apples, I will call around and thank your mother for these three nice apples.

Teacher, please, pleaded little Tommy, would you mind thanking her for six apples?

## Our Mistake, Waiter

A very green couple from the country were on their honeymoon. A town friend had recommended a certain London restaurant where shellfish were a specialty.

Oh, said the bride, after scanning the menu, I think I'll have a dozen lobsters!

Lobsters, madam? echoed the waiter. You don't mean that?

Of course she means lobsters! The groom gave the waiter a severe look. And you may bring me a dozen, too.

In due course the waiter appeared, staggering under two trays piled high with the red shellfish. He placed a dozen in front of the girl and a dozen in front of the man.

The young husband looked at them aghast. So did his bride. She was the first to recover her speech.

Don't you think, dearest, she said, that maybe it was oysters Harold told us to get?

## That's an Idea

Willie: Mamma, are you going to get the new coat you want from Santa Claus this Christmas?

Mother: I'm afraid not, my dear.

Willie: Have you tried throwing yourself on the floor and kicking with your feet and yelling like I do?—*Pathfinder*.

## Even at present low prices these are bargains

8—No. 2 Loshbough Jordan inclinable presses.  
9—No. 3 Loshbough Jordan inclinable presses.  
2—No. 4 Loshbough Jordan geared inclinable presses.  
11—No. 5 Loshbough Jordan geared inclinable presses.  
No. 7-10-12 Zeh & Hahneman percussion presses.  
No. 8 Consolidated geared inclinable press, 6" stroke.  
No. 8 Bliss double crank, 10" stroke, motor drive.  
S154 Ferracute double crank, 74" wide, 14" stroke.  
10-25-150 ton Henry & Wright dieing machines.  
No. 00-0-2 Brown & Sharpe automatics, two years old.  
No. 83 Cameron can body makers, for round cans.  
No. 159 Bliss double seamer for drums 31"x40".  
60" Bullard vertical boring mill, rapid traverse; two heads, chuck jaws, most excellent condition.  
8 roll McKinney rolling machine and motor.  
No. 6 Becker vertical miller with rotary, rebuilt.

*Also lathes, shears, brakes, Oxygraph cutting machine, hand screw machines, etc.*

**A. D. White Machinery Co.**  
108 N. Jefferson St., Chicago, Ill.

## LATE MODEL Desirable Machine Tools PRICES ATTRACTIVE

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14"x6" Hendey, c. r. and t. a.  
14"x6" American, c. r., geared head.  
16"x12" Prentice, c. r. & t. a., g. hd.  
18"x8" Boye & Emmes, c. r.  
20"x10" Schumacher & Boye, c. r.  
24"x12" Monarch, c. r., g. h., mtr. dr.

### DRILLS AND RADIALS

No. 14 Natco Drills, m. d., (2).  
No. 30 Natco Drills, m. d.  
No. 60 Natco Drills, m. d., 3-way.  
No. 217 Baker Hvy. Duty, m. d. (7).  
No. 3 Dehance Hvy. Duty, m. d.  
No. 3 Minster Hvy. Duty, m. d.  
4" Hammond Sens. Radials, m. d. (10)

3" American Radial, enclosed head.  
4" Bickford Radial, gear box.

### MILLERS

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No. 2-A K. & T. Pl. Dbl. Over Arm.  
No. 2 Cincinnati Pl. Con. Sp. m. d. (2).  
No. 4B Hvy. B. & S. Pl. Con. Sp. Dr.  
No. 3 Cincinnati Vertical.  
No. 4 Cincinnati Vert., late type sel. sp.

### BORING MILLS & PLANER

No. 31 Lucas Horizontal Boring Mill.  
60" Colburn Vertical, 2 heads, m. d.  
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5/64	.33	1.26
3/32	.34	1.26
7/64	.35	1.26
1/8	.36	1.26
2/64	.37	1.26
5/32	.49	1.26
11/64	.40	1.26
3/16	.57	1.45
13/64	.50	1.45
7/32	.60	1.62
15/64	.60	2.55
1/4	.82	2.55
17/64	.88	3.19
9/32	.95	3.19
19/64	.80	3.60
5/16	1.09	3.66
21/64	.94	4.25
11/32	1.27	4.25
23/64	1.10	4.68
3/8	1.50	4.68
25/64	1.30	5.10
13/32	1.75	5.10
27/64	1.85	5.95
7/16	2.13	5.95
29/64	1.85	6.38
15/32	2.00	6.38
31/64	2.20	6.80
1/2	3.00	6.80

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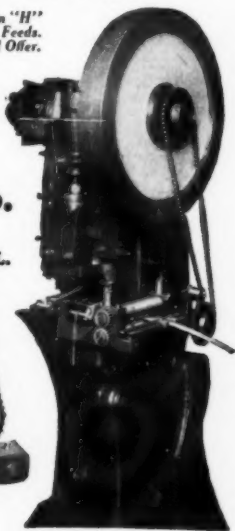
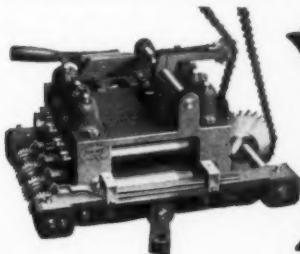
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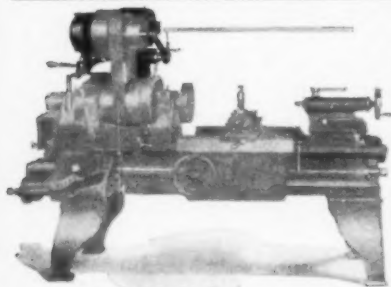
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